

STN

(FILE 'HOME' ENTERED AT 13:14:59 ON 06 JUN 1998)

FILE 'REGISTRY' ENTERED AT 13:15:57 ON 06 JUN 1998

L1	0 S MTDPRQLHLAGFFC/SQSP
L2	0 S ATISTTTY/SQSP
L3	0 S LAQRNVPT/SQSP
L4	78 S SPHINGOMONAS
L5	0 S L4 AND DSZ
L6	7 S DSZA OR DSZB OR DSZC OR DSZ A OR DSZ B OR DSZ C
L7	0 S L6 AND L4

APS

(FILE 'USPAT' ENTERED AT 09:12:24 ON 06 JUN 1998)

L1	0 S (DSZA OR DSZB OR DSZC) AND SPHINGOMONAS
L2	1 S (DSZA OR DSZB OR DSZC)
L3	0 S SPHINGOMONAS AND BIODESULFURIZ?
L4	7365 S DESULFUR?
L5	0 S L4 AND SPHINGOMONAS
L6	351 S RHODOCOC?
L7	0 S L6 AND (DSZ(3W)A OR DSZ(3W)B OR DSZ(3W)C)
L8	41 S DESULFUR? AND RHODOCOC?
L9	1003 S (DIBENZOTHIOPHENE# OR DBT)
L10	23 S L9 AND RHODOCOC?
L11	0 S L9 AND SPHINGOMONAS

STN

(FILE 'HOME' ENTERED AT 09:31:11 ON 06 JUN 1998)

FILE 'CAPLUS, MEDLINE' ENTERED AT 09:32:22 ON 06 JUN 1998

L1 34878 S DESULFUR?  
L2 317 S SPHINGOMONAS  
L3 2 S (DSZ (3W)A OR DSZ (3W)B OR DSZ (3W)C)  
L4 2886 S DIBENZOTHIOPHENE OR DBT  
L5 0 S L2 AND L3  
L6 0 S L3 AND L4  
L7 3 S L4 AND L2  
L8 0 S L7 AND L1  
L9 0 S L1 AND L2  
L10 5 S L3 OR L7

=> d 1-5 ibib ab

L10 ANSWER 1 OF 5 CAPLUS COPYRIGHT 1998 ACS

ACCESSION NUMBER: 1997:683021 CAPLUS

DOCUMENT NUMBER: 127:297978

TITLE: Constituents of an Organic Wood Preservative  
that Inhibit the Fluoranthene-Degrading Activity  
of *Sphingomonas paucimobilis* Strain  
EPA505

AUTHOR(S): Lantz, S. E.; Montgomery, M. T.; Schultz, W. W.;  
Pritchard, P. H.; Spargo, B. J.; Mueller, J. G.

CORPORATE SOURCE: SBP Technologies Inc., Gulf Breeze, FL, 32561,  
USA

SOURCE: Environ. Sci. Technol. (1997), 31(12), 3573-3580  
CODEN: ESTHAG; ISSN: 0013-936X

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CJACS-IMAGE; CJACS

AB *Sphingomonas paucimobilis* strain EPA505 is capable of  
utilizing many components of coal tar creosote as sole sources of C  
and energy for bacterial growth, including fluoranthene and other  
polycyclic arom. hydrocarbons (PAH). During several bioremediation  
studies, however, we obsd. that the fluoranthene degradative  
activity of strain EPA505 was inhibited by the presence of undefined  
creosote constituents. In practice, integration of a pretreatment  
step prior to inoculation with strain EPA505 was necessary to  
facilitate the biodegrdn. of high mol. wt. (HMW) PAHs. Expts. were  
thus initiated to det. which compd. classes in creosote inhibited  
fluoranthene metab. by strain EPA505. Creosote was fractionated by  
solvent extrn. at various pH, and 3 chem. classes were examd.: acid  
(phenolics), base (N-heterocyclics), and neutral (PAH). The  
mineralization rate of <sup>14</sup>C-labeled fluoranthene and cell viability  
were examd. in the presence of these creosote fractions at a range  
of concns. These studies confirm that strain EPA505 has differing  
susceptibility to the effects of the 3 classes of creosote  
constituents. The obsd. order of toxicity/inhibition was basic  
fraction > acidic fraction > neutral fraction. These studies  
provide engineering guidelines and define contamination ranges under  
which strain EPA505 can be used most effectively as a catalyst in  
bioremediation.

L10 ANSWER 2 OF 5 CAPLUS COPYRIGHT 1998 ACS  
ACCESSION NUMBER: 7:268196 CAPLUS  
DOCUMENT NUMBER: 116:340861  
TITLE: Comparative study of five polycyclic aromatic hydrocarbon-degrading bacterial strains isolated from contaminated soils  
AUTHOR(S): Dagher, Fadi; Deziel, Eric; Lirette, Patricia; Paquette, Gilles; Bisailon, Jean-Guy; Villemur, Richard  
CORPORATE SOURCE: Centre de Recherche en Microbiologie Appliquee, Institut Armand-Frappier, Laval, PQ, H7V 1B7, Can.  
SOURCE: Can. J. Microbiol. (1997), 43(4), 368-377  
CODEN: CJMIAZ; ISSN: 0008-4166  
PUBLISHER: National Research Council of Canada  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Five polycyclic hydrocarbon (PAH) degrading bacterial strains, *Pseudomonas putida* 34, *Pseudomonas fluorescens* 62, *Pseudomonas aeruginosa* 57, ***Sphingomonas*** sp. strain 107, and the unidentified strain PL1, were isolated from two contaminated soils and characterized for specific features regarding PAH degrading. Degrading efficiency was determined by the rapidity to form clearing zones around colonies when sprayed with different PAH solutions and the growth in liquid medium with different PAHs as sole source of carbon and energy. The presence of plasmids, the production of biosurfactants, the effect of salicylate on PAH degradation, the transformation of indole to indigo indicating the presence of an aromatic ring dioxygenase activity, and the hybridization with the SphAb probe representing a sequence highly homologous to the naphthalene dioxygenase ferredoxin gene nahAb were examined. The most efficient strain in terms of substrate specificity and rapidity to degrade different PAHs was ***Sphingomonas*** sp. strain 107, followed by strain PL1 and *P. aeruginosa* 57. The less efficient strains were *P. putida* 34 and *P. fluorescens* 62. Each strain transformed indole to indigo, except strain PL1. Biosurfactants were produced by *P. aeruginosa* 57 and *P. putida* 34, and a bioemulsifier was produced by ***Sphingomonas*** sp. strain 107. The presence of salicylate in solid medium has accelerated the formation of clearing zones and the transformation of indole by ***Sphingomonas*** sp. strain 107 and *P. aeruginosa* 57 colonies. Plasmids were found in ***Sphingomonas*** sp. strain 107 and strain PL1. The SphAb probe hybridized with DNA extracted from each strain. However, hybridization signals were detected only in the plasmidic fraction of ***Sphingomonas*** sp. strain 107 and strain PL1. Using a polymerase chain reaction (PCR) approach, we determined that several genes encoding enzymes involved in the upper catabolic pathway of naphthalene were present in each strain. Sequencing of PCR DNA fragments revealed that, for all the five strains, these genes are highly homologous with respective genes found in the pah, dox, and nah operons, and are arranged in a polycistronic operon. Results suggest that these genes are ordered in the five selected strains like the pah, nah, and dox operons.

L10 ANSWER 3 OF 5 CAPLUS COPYRIGHT 1998 ACS  
ACCESSION NUMBER: 1994:235372 CAPLUS  
DOCUMENT NUMBER: 120:235372  
TITLE: Absorption and disposition of SDZ IMM 125, a new cyclosporine derivative, in rats after single and repeated administration  
AUTHOR(S): Bruelisauer, A.; Kawai, R.; Misslin, P.; Lemaire M.  
CORPORATE SOURCE: Sandoz Pharma Ltd., Basel, Switz.  
SOURCE: Drug Metab. Dispos. (1994), 22(2), 194-9  
CODEN: DMDSAI; ISSN: 0090-9556

DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The absorption and disposition of **SDZ IMM 125**, a new derivs. of the cyclosporine family, were studied in rats after oral, s.c., or i.v. dosing. The abs. bioavailability of 53% obsd. after a single oral dose of 10 mg/kg was variable and similar to that obsd. with cyclosporin A. The bioavailability was not modified during 21 days of daily treatment. The fraction of **SDZ IMM 125** bound to plasma proteins was moderate (70% vs. 95% for cyclosporin A), whereas the uptake by blood cells was considerably higher than that of cyclosporin A varying from 80% at 50 ng/mL to 30% at 10,000 ng/mL. **SDZ IMM 125** distributes extensively in most tissues except in brain; multiple oral administration does not modify the tissue distribution and indicates that there is no drug accumulation. The tissue distribution of **SDZ IMM 125** is lower than that of cyclosporin A; the vol. of distribution of this drug (2.6 L/kg) is roughly half that of cyclosporin A, which is consistent with the lower lipophilicity of this compd. The systemic clearance of **SDZ IMM 125** is relatively low (1.3 mL/min) and comparable to that of cyclosporin A. The excretion of **SDZ IMM 125** occurs essentially through the liver via the bile; biliary and urinary excretion of unchanged drug represents 18% and 7% of the dose, resp. The significant excretion of unchanged drug in both bile and urine represents a major difference compared with cyclosporin A, which is not excreted as unchanged drug to any extent.

L10 ANSWER 4 OF 5 CAPLUS COPYRIGHT 1998 ACS

ACCESSION NUMBER: 1992:190794 CAPLUS

DOCUMENT NUMBER: 116:190794

TITLE: Metabolism of dibenzo-p-dioxin by  
**Sphingomonas** sp. strain RW1

AUTHOR(S): Wittich, Rolf Michael; Wilkes, Heinz; Sinnwell,  
Volker; Francke, Wittko; Fortnagel, Peter

CORPORATE SOURCE: Inst. Allg. Bot., Univ. Hamburg, Hamburg,  
D-2000, Germany

SOURCE: Appl. Environ. Microbiol. (1992), 58(3), 1005-10  
CODEN: AEMIDF; ISSN: 0099-2240

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In the course of screening for dibenzo-p-dioxin (I)-utilizing bacteria, a **Sphingomonas** strain was isolated from the river Elbe. The isolate grew with both the biaryl ethers I and dibenzofuran as sole sources of C and energy, showing doubling times of about 8 and 5 h, resp. Biodegrdn. of the 2 arom. compds. initially proceeded after an oxygenolytic attack at the angular position adjacent to the ether bridge, producing 2,2',3-trihydroxydiphenyl ether (II) or 2,2',3-trihydroxybiphenyl from the initially formed dihydrodiols, which represent extremely unstable hemiacetals. Results obtained from detns. of enzyme activities and O<sub>2</sub> consumption suggest meta cleavage of the trihydroxy compds. During dibenzofuran degrdn., hydrolysis of 2-hydroxy-6-oxo-6-(2-hydroxyphenyl)-hexa-2,4-dienoate yielded salicylate, which was branched into the catechol meta-cleavage pathway and the gentisate pathway. Catechol obtained from the product of meta ring fission of II was both ortho and meta cleaved by **Sphingomonas** RW1 when this organism was grown with I.

L10 ANSWER 5 OF 5 CAPLUS COPYRIGHT 1998 ACS

ACCESSION NUMBER: 1991:670514 CAPLUS

DOCUMENT NUMBER: 115:270514

TITLE: Effects of the partial dopamine receptor  
agonists **SDZ 208-911**, **SDZ 208-912** and terguride  
on central monoamine receptors. A behavioral,  
biochemical and electrophysiological study

AUTHOR(S): Svensson, Kjell; Ekman, Agneta; Piercey,

Montford F.; Hoffmann, William E.; Lum, Janet  
Carlsson, Arvid

CORPORATE SOURCE:

Dep. Pharmacol., Univ. Goeteborg, Goeteborg,  
S-400 33, Swed.

SOURCE:

Naunyn-Schmiedeberg's Arch. Pharmacol. (1991),  
344(3), 263-74

CODEN: NSAPCC; ISSN: 0028-1298

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB The partial dopamine receptor agonists SDZ 208-911 {N-[(8- $\alpha$ )-2,6-dimethylergoline-8-yl]-2,2-dimethylpropanamide}, SDZ 208-912 {N-[(8- $\alpha$ )-2-chloro-6-methylergoline-8-yl]-2,2-dimethylpropanamide} and terguride (transdihydrolisuride; TDHL) were tested in biochem., behavioral (locomotor activity) and electrophysiol. assays in male rats. In reserpine-pretreated rats, SDZ 208-911 and terguride dose-dependently reduced striatal DOPA formation (NSD 1015 treatment) with similar efficacy (-80%) and potency as the selective D2 receptor agonist quinpirole (LY 171555). SDZ 208-912 only produced a partial redn. (-32%) at the highest dose tested. SDZ 208-911 and terguride partially reversed (by approx. 50%) the gamma-butyrolactone (GBL)-induced increase in striatal DOPA accumulation. Quinpirole produced a 100% reversal while SDZ 208-912, per se, was inactive. While quinpirole decreased DOPA accumulation, all three partial agonists elevated striatal DOPA accumulation in non-pretreated rats with SDZ 208-912 being as potent and efficacious as haloperidol. The three partial agonists displayed comparatively high affinities in vitro from the dopamine D2 (3H-spiperone) receptor site and somewhat lower affinity for the 5-HT1A (3H-8-OH-DPAT) receptor site. SDZ 208-911 and SDZ 208-912 also showed high affinities for central alpha2 (3H-idazoxane) receptors. In line with these findings, the partial ergoline agonists dose-dependently elevated the DOPA accumulation in the noradrenaline-rich cortical brain region and decreased the 5-HT synthesis rate (5-HTP accumulation) in the limbic brain region. Furthermore, high doses of SDZ 208-911 and terguride produced weak signs of the 5-HT behavioral syndrome (flat body posture) in reserpinized rats. In the locomotor activity studies in non-pretreated rats, SDZ 208-911, SDZ 208-912 and terguride reduced the activity to 10-20% of controls with SDZ 208-912 being approx. ten times less potent than the other two compds. Weak postsynaptic dopamine receptor agonist effects of the partial agonists were demonstrated only in reserpine-pretreated rats; all three partial agonists tested produced occasional forward locomotion and the so-called "jerking" behavior. Extracellular single unit recordings were carried out in chloral hydrate-anesthetized rats to investigate the effects on firing rates of dopamine neurons located in the substantia nigra pars compacta. I.v. administration of SDZ 208-911 and terguride depressed the firing rate by 42 and 53%, resp., while apomorphine completely inhibited the cells. SDZ 208-912 only reduced the firing by 16% and some cells displayed a biphasic response with a weak depression at low doses that disappeared at high doses. SDZ 208-912 and SDZ 208-911 completely reversed the inhibition of firing rate produced by d-amphetamine, while SDZ 208-912 partially (81%) reversed the inhibitory effects of apomorphine. It is concluded that all three amino-ergolines possess partial dopamine receptor agonistic effects with SDZ 208-911 and terguride displaying a similar intrinsic efficacy (in certain models approx. 50% that of quinpirole or apomorphine). On the other hand, SDZ 208-912 displays a very low intrinsic efficacy, detectable only in the electrophysiol. model and in reserpinized rats. The results are discussed in relation to the